

**Dr. Ayşe Glass**

Date of Birth, place : 27.08.1988, Izmir
Address : Steenwisch 32, 22527 Hamburg/Germany
Mobile : (+49) 152 514 389 01
E-mail : ayseglass@gmail.com
Website : <http://www.ayseglass.com>
Ongoing exhibition : <https://creativeai2022.de/>
Store : <http://creativearchitecture.store/>

Social Media

: <https://medium.com/@ayseglass>
<https://www.facebook.com/akustikmimar>
<https://www.facebook.com/cocukvemekan>
<https://www.facebook.com/pg/ukulelehamburg/posts/>
<https://www.youtube.com/c/AyseSabah/videos>

Professional Statement:

I am an architect specializing in computational design in building technology and acoustics. My research areas are, generative design, computer simulations for performance-based parametric design and optimization. Technology is offering wide opportunities to science; data can work faster than manual labor, different data can be remembered and evaluated at the same time. I devised an interactive and algorithmic method which can be used for designing halls from the early design stages (see my PhD thesis). I operationalized the method in a newly developed 3D-dynamic simulation program and used the acoustic parameters as a design driver. The simulation results were validated with Odeon and encouraged me to go on with my research on computational architecture, as well adding as next step; adaptive systems, digital fabrication and BIM systems. My research is grounded on my professional experience, realizing more than 30 projects, 10 of them as sole acoustic specialist and designer (project design, planning, implementation, test and reporting). I worked with several teams each member with a different professional background, in a multinational context, eg. for the Hilton Bomonti, Çın-Pavilion of Turkey at the Venice Biennale. I have experience in budgeting projects and took responsibility of the human resources, e.g. the Sumahan Office, Arnavutköy Planetarium, Kabatepe Museum, Torbalı Chamber of Commerce, Eskişehir Faculty of Architecture Projects.

Current Position: Postdoc researcher on AI and City at the HafenCity University, Digital City Science, musician in Thalia Theater, instructor in Musical Lab

- I would like to go on research generative and interactive architectural design. I want to design intelligent spaces which can robotize and change according to adjusted parameters, moods, music, time, light, function or user perceptions.
- I want to research sustainability and high rise buildings, energy-optimization in construction and AI use cases for the city.
- I would like to collaborate/teach concerning building technology, AI, art and architecture.

EducationDoctoral

2015-2020 PhD, Mimar Sinan Fine Arts University, Istanbul, Turkey
Faculty of Architecture, Institute of Science and Technology

Building Technology Program

Thesis: An Algorithmic Design Method For Halls and Three Dimensional Active Model Simulation Program

Graduate

2010-2013 MSc (Architecture), Mimar Sinan Fine Arts University, Istanbul, Turkey
Faculty of Architecture, Institute of Science and Technology

Building Physics and Materials Program

Thesis: Interweaving Music and Architecture: From Antique Performance Spaces to the Spatial Design of Contemporary Concert Halls

Undergraduate

2006–2010 Bachelor of Architecture
Mimar Sinan Fine Arts University, Istanbul, Turkey
Faculty of Architecture

Languages: Turkish (Native), English (Fluent), German (Intermediate), Chinese (Beginner)

Publications & Presentations

Synthetic Pedestrian Routes Generation: Exploring Mobility Behavior of Citizens through Multi-Agent Reinforcement Learning, *Procedia Computer Science* 207 (2022) 3361–3369

An Algorithmic Design Method for Halls and Three Dimensional Active Model Simulation Program, PhD Thesis, *Mimar Sinan Fine Arts University, Institute of Science and Technology, April 2020.*

On the Acoustic Conditions in Dental Clinics: A Grounded Theory Approach, Accepted Summary in *Programm Heft, 46. Deutsche Jahrestagung für Akustik, Hannover, 16-19 March 2020 (Cancelled).*

Simulating Soundscapes Through Machine Learning: A Prototype of Open Space Noise, 12. *National Congress on Acoustics, Izmir Institute of Technology, 14-15 September 2017.*

The Dragging Paradox: Spatiality in Between Modern Concert Halls and Music, *International Art Symposium; Art, Reality and Paradox, Mugla Sıtkı Kocman University, 8–9 October 2015.*

Acoustic Design Criteria of High Rise Buildings, 11. *National Congress on Acoustics, Istanbul Technical University, 19-20 October 2015.*

Evliyah Celebi Travels To Vienna: An Intercultural Description. III. *International Research Symposium on the Turkic World, Baku Eurasia University, 25–27 May 2016.*

Interweaving Music and Architecture: From Antique Performance Spaces to the Spatial Design of Contemporary Concert Halls, 10. *National Congress on Acoustics, Yildiz Technical University, December 2013.*

Interweaving Music and Architecture: From Antique Performance Spaces to the Spatial Design of Contemporary Concert Halls, M.Sc. Thesis, *Mimar Sinan Fine Arts University, Institute of Science and Technology, May 2013*

Skills

Hobbies/Interests : Music, dance, aerial yoga

Computer skills: Advance: AutoCad, SketchUp, Processing, EASE, Photoshop, MS Office, IMovie, GarageBand Intermediate: Rhino, Grasshopper, Odeon, Python, Archicad

Musical skills and competences: Playing the synth, piano, flute, ukulele. Playing in musicals, composing musical works for theater, teaching, organizing seminars and workshops.

Competitions & Awards

- UrbanInform Competition Final Project “Portable Field Dental Clinic”, Project Owner
- Izmir Opera House Competition (2010), 5th Honorable Mention, Second stage, Assisting Team, Architect, Acoustic Consultant
- Izmir Opera House Competition (2010), 6th Honorable Mention, Second stage, Assisting Team, Architect, Acoustic Consultant
- Instagram Photo Contest / Biking 2016
- German Consulate General Istanbul Instagram Video Contest #evdeokulcool, 2. Place, 2020

Experience and Projects

Ongoing Academic Seminars

2022- Current: Simulations, Artificial Intelligence, and Architecture

Skills Kompetenzen: Sounds Like Architecture

2016-2020 Regular seminars on Computational Design and Acoustics for my PhD
2016 Seminar on Performance Based Generative Design and Parametric Architecture
2015 Seminar on High Rise Buildings in Istanbul
2011-2013 Seminars on New Music and Contemporary Hall Designs

Non-Academic Teaching

2020 Regular Workshops (every 2 weeks): Creative music makers and Jam Sessions-Hamburg
2019 Workshop Seminars 'Keys and Scales', 'Ukulele Beginner' 'Piano meets Ukulele'.
2014 Workshop seminar 'Composers design with architects'
2013 Regular music and piano lessons in elementary school, Istanbul

Ongoing Academic Projects:

DaFne: Platform Data Fusion Generator for the Artificial Intelligence

<https://dafne.haw-hamburg.de/>

Acoustic Projects:

As sole acoustic consultant:

December 2014-August 2020 Glass & Sabah Acoustics, Istanbul

- Founder, acoustic consultant and architect
- Projects: Arnavutköy Planetarium, 2019-Istanbul, Sumahan Historical Office Building, 2018-Istanbul, Aydın Municipality Building Project-Izmir, Venice Bienalle, Turkish Pavilion-Cevdet Ereğ, 2017-Italy, Anadolu University, Faculty of Architecture Acoustic Design and Sound Isolation Project-Eskisehir, Privat Music Studio-Istanbul, Anadolu University, Open Faculty Acoustic Design and Sound Isolation Project-Eskisehir, Gülsa Production Facility, Acoustic Treatment Project-Izmir, Istanbul Halic University Conference Hall, Acoustic Design Project, Torbalı Conference Hall, Bitlis Eren University, Istanbul Ticaret University Concert Hall, Uskudar Cultural Center Acoustic Concept Project,

Cooperation projects:

July 2010–December 2014 Blackbox Acoustics, Izmir

- Architectural acoustic design, architectural modeling, technical drawing and preparing acoustic reports, helping acoustic measurements.
- Projects: Izmir Yasar University, Izmir Chamber of Architects Administration Building, Sultangazi Cultural Center, Nigde University Conference Hall, Mersin Stadium, Denizli Incilipinar Cultural Center, Canakkale Kabatepe Museum, Big Chefs Istanbul Acoustic Treatment Project

December 2010–July 2013 Acoustics & Noise Control, Istanbul

- Acoustic consultant, architect. Architectural acoustic design and modeling, managing different teams, detail design and preparing acoustic reports
- Hilton Bomonti International Tourism & Convention Center, Varan Movenpick Ankara Hotel, Benghazi Multiuse Complex, Antakya Museum and Hotel, Conrad Istanbul acoustic treatment, Adana Ibis Hotel, Kutahya Airport,

New Suleimani University Campus Congress Hall. ODTU
Environmental Engineering lecture room, Avrasya
Performing Arts Center, Zeytinburnu Administration
Building

July 2010–December 2010 Team Fores Design Group, Istanbul

- Acoustic consultant, architect. Acoustic design, modeling, report preparation, architectural competitions.
- Ashgabat TV Tower, Pana film studios

Architectural Projects:

July 2013–February 2014

Cem Architecture Ltd, TB Architecture, Istanbul

- Design architect. Architectural design and modeling of large-scale projects, presentations.
- Metro and Kozyatagi skyscraper project, Gaziantep shopping mall, Residential and Industrial projects, Tec Coffeehouse concept project, Azerbaijan restaurant interior design project

February 2011–February 2013 Maveria Architecture & Design, Istanbul

- Architect. Architectural design, modeling, checking the construction site.

Internships:

July 2009

Bilgi University, Istanbul

- Intern. Assisting the research team.

August 2009

Vizzion Architects, Brussels

- Intern. Architectural design, technical drawing with Archicad.

July 2008–September 2008

Tam Yapı Denetim, Izmir

- Intern. Technical drawings, supervising different construction areas.

June 2007–August 2007

Izsu, Izmir

- Intern for construction areas. Technical drawings, supervising restoration projects.

Memberships, Certificates and Attended Educations

Turkish Acoustical Society (TAKDER), Deutsche Gesellschaft für Akustik e. V. (DEGA), Audio Engineering Society (AES), Chamber of Architects of Turkey, Istanbul, La Leche League (LLL)

Name	Assigned by	Year
KES Participant & Presenter	26. International Conference on Knowledge-Based and Intelligent Information & Engineering Systems	2022
GAMA Days	GAMA Platform, Unite Mixte Internationale, ZGIS	2022
Compose and Program Music in Python using Earsketch	Coursera project network	2021

Theoretical Music Therapy	Yildiz Technical University-SEM, Istanbul	2021
Art and Activity: Interactive Strategies for Engaging with Art	Coursera – authorized by the MoMA (The Museum of Modern Art)	2021
Architectural Parametric Modeling with Rhino and Grasshopper	Chamber of Architects, Istanbul	2020
Zertifikat Pro Exzellenzia 4.0 Qualifizierungsprogramm für Migrantinnen	Hamburg Innovation GmbH. Project financed by European Social Funds and	2020
Architectural Fire Safety Design	Chamber of Architects, Istanbul	2020
CI German	Volkshochschule Hamburg	2019
Auditorium Acoustics Conference	Institute of Acoustics	2018
Chinese for Beginners	Peking University-Coursera	2015
B1.2 German	Goethe Institute	2014
Physical Space and Aesthetics in Library Buildings Workshop	RCAC (Research Center for Anatolian Civilizations)	2013
C-1 Engineering Acoustics / Building Acoustics	ITU (Istanbul Technical University)	2012
A-2 Engineering Acoustics	BUTECH (Bahcesehir University)	2011
Certificate of Participation in “Green Building Principles” Course—LEED	CEDBIK- Turkish Green Building Association	2011
Spatial Music-Architecture Design Workshop	Emre Senan Foundation for Design	2008
Thinker & Talker Camp 08 Entrepreneurship-	Marmara Community	2008
Management Congress	ITU (Istanbul Technical University)	2008
Creation of an Individual Brand	Yasemin Sungur Institute	2008
Viki Marketing and Viki Brands	Mediacat Communication Institute	2008
La Salle Matris Thinking Seminar	Kalder (Turkey Association of Quality)	2008
4. National Roof Cladding & Facade Surfacing, modern material and technology symposium	CATIDER (Association of Roofing Industrialists and Businessmen)	2008